

NOTE ON AERIAL SWARMING OF *PERISSOMMA*
(DIPTERA: PERISSOMMATIDAE)

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Abstract

Aerial swarming of males of *Perissomma mcalpinei* Colless is described.

Introduction

Flies of the family Perissommatidae were described for the first time in 1962, and almost all that is known about them is included in the two papers of Colless (1962; 1969). Some observations on living adults of *Perissomma fusca* Colless and larvae of *P. fusca* and *P. mcalpinei* Colless were recorded.

Field Observations

Observations on *Perissomma mcalpinei* were made near the scenic lookout at Mount York, Blue Mountains, New South Wales, at an altitude of 1070 m. This locality is 10 km as the crow flies SW of Mount Wilson, the type locality of the species. The habitat is dry sclerophyll forest on well drained rocky ground (sandstone) on a hill top at the termination of a range system. Nearby development includes a road, carpark, and walking tracks with a remnant of a flower garden.

The generalisation of Colless (1969) that *P. mcalpinei* lives naturally in rain forest and wet sclerophyll forest is not supported by this occurrence, as a true wet sclerophyll is at some distance and there is no rain forest in the vicinity. The habitat at Mount Boyce, Blue Mountains, where I swept a female of *P. mcalpinei* on 19.v.1967, is similar to that at Mount York.

The date of observation, 6.vii.1986, is at about the coldest time of year, the average temperature for July at nearby Mount Victoria being 5.4°C. This accords with collection dates for adults of *Perissomma* spp. in general given by Colless (1962; 1969), which are mostly in June and July, but at Mount Donna Buang, near Warburton, Victoria, I obtained 2 adults of *P. mcalpinei* on 8.iv.1963.

Numbers of these small, delicate flies were seen in mid afternoon on and near a plant of waratah (*Telopea speciosissima*, family Proteaceae) about 1 m high, and some also at an adjacent plant (? *Agapanthus* sp., family Alliaceae, not native). A few specimens were first observed singly in the sunlight on leaves or flying above them for some time. They were then observed also in small aerial swarms of 2 to about 5 flies just above these plants. Individuals in the swarms did not hover, but flew in a rather rapid zigzag path which made it slightly difficult to capture them with a pocket net of c. 15 cm diameter. Sometimes, after flying above a leaf for a little time, an individual would alight on it. One pair was seen *in copula* on a leaf. As the area fell into shade, activity of the flies ceased, but this could have been due to disturbance by the collectors.

The sample of 33 specimens of *P. mcalpinei* collected on this occasion included only 2 females. Many of these were taken from the flying swarms, which evidently consisted entirely or almost entirely of males. Male aerial swarms are known for Diptera of many families (Downs, 1969; Oldroyd, 1964) and generally are considered to signal the males' availability for mating.

The active, often sustained flight of *P. mcalpinei* contrasts with the flight behaviour of *P. fusca* as recorded by Colless 1962. He found them to be "extremely sluggish, to such an extent that, in the laboratory, they are most conveniently handled with forceps, like apterous insects. They rarely fly, even when disturbed, and the occasional short flight lasts for only a second or less . . .".

Acknowledgement

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References

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NEW RECORDS OF BUTTERFLIES (LEPIDOPTERA: PAPILIONOIDEA) FROM KANGAROO ISLAND, SOUTH AUSTRALIA

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Introduction

Kangaroo Island is a rich area for South Australian butterflies; Fisher (1985) records 24 species from this island out of a total of 64 known to occur in South Australia. During field work in late October and early November, 1985, I found two additional species for Kangaroo Island, bringing the total number of species now known to 26.

New records

NYMPHALIDAE

Vanessa itea (Fabricius)

A single specimen was sighted but not collected on 29 October, 1985, 10 km south of Penneshaw.

LYCAENIDAE

Theclinesstes miskini miskini (T. P. Lucas)

Two males were taken at American Beach on 1 November 1985. Both were flying rapidly around *Adriana klotzschii* on top of a sand dune in company with *T. albocincta*.

Reference

- Fisher, R. H., 1985. Butterflies (Lepidoptera: Hesperioidea, Papilionoidea) of Kangaroo Island. *Aust. ent. Mag.* 12(1): 1-8.